

# Work Order ID 53006

October 21, 2009 7:57:56 AM



Page 1

Item ID: D3822-1KGY

Accept



Setup Start



Revision ID: C

Stop



Item Name: Vertical Tunnel, 1H-Grey

Start Date: 21/10/2009 Start Qty: 2.00



Cast Item ID:

Required Date: 30/10/2009 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

BT

Date:

09-10-21

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

03822

C

100

0.00



HandThermo

Memo

0.00

Hand Finishing Thermoforming

1-Cut Sheet to required Blank size

110

0.00



Thermoform

Memo

0.00

Thermoforming Machine






1-Machine Set-Up  
2-Pre-heat Tool to required temp.  
3-Thermoform as per Dwg and Folio #FTA025 using tool DT9073  
Dwg Rev: C  
Folio Rev: B

BB 09/10/22  
X2  
X1

BB 09/10/22  
X3  
2 GOOD  
1 SCRAP  
PTO

W/O: 53006		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3822-11564 <sup>-D206-781</sup> PAR #: N/A Fault Category: Thermal NCR: Yes No DQA: NA Date: 09-11-06  
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: NA Date: 09-11-17

NCR: 53006		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09/10/08	110	PART BUSIERSO when I turned. TO MUCH Moisture IN SHEET R.C. Process		Scrap AND Destroy AND Replace B MILL 807	 09/10/08	 09/10/08		 09/10/08

NOTE: Date & initial all entries

**Work Order ID 53006**

October 21, 2009 7:57:56 AM



Page 2

Item ID: D3822-1KGY

Accept



Setup Start



Revision ID: C

Stop



Item Name: Vertical Tunnel, LH-Grey

Start Date: 21/10/2009 Start Qty: 2.00



Cust Item ID:

Required Date: 30/10/2009 Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC2- Inspect parts off machine FAI/FAIB	0.00							
QC	Memo	0.00							
Quality Control	Visually inspect part for proper formation and texture								
130	QC8- Inspect parts - second check	0.00							
QC	Memo	0.00							
Quality Control									
140		0.00							
HandThermo	Memo	0.00							
Hand Finishing Thermoforming	1-Trim to finished dimensions as per Dwg								

BB  
09/10/27  
(X2)  
(X1) SRAP  
09/10/27  
(X2)  
BB 09/10/28  
(X3)

# Work Order ID 53006

October 21, 2009 7:57:56 AM



Page 3

Item ID: D3822-1KGY

Accept



Setup Start



Revision ID: C

Stop



Item Name: Vertical Tunnel, LH-Grey

Start Date: 21/10/2009 Start Qty: 2.00



Cust Item ID:

Required Date: 30/10/2009 Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

150

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

Complete FAI document

BB 09/10/28  
X2

160

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

=> 505/10/29

X2

170

Identify as per dwg & Stock Location: \_\_\_\_\_

0.00



Packaging

Memo

0.00

Packaging

PC 9/14 3 u (2)

**Work Order ID 53006**

Page 4

October 21, 2009 7:57:56 AM

Item ID: D3822-1KGY

Accept



Setup Start



Revision ID: C

Stop



Item Name: Vertical Tunnel, LH-Grey

Start Date: 21/10/2009 Start Qty: 2.00



Cust Item ID:

Required Date: 30/10/2009 Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

180

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/10/30

mf

09-10-30

# Picklist Print

October 21, 2009 7:58:01 AM

Page 1

Work Order ID: 53006



Parent Item: D3822-1KGYRevC



Parent Item Name: Vertical Tunnel, LH-Grey

Start Date: 21/10/2009

Required Date: 30/10/2009

Comments:

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bir Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MKYD6185S.080-P3- 52068		Purchased	No			100	sf	702.5028	15.6078			



Kydex steel grey

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

MAT

702.5028

111807

702.5028

2  
X1

09/10/22 X2  
DD

DART AEROSPACE LTD		Work Order:	53006
Description: Vertical Tunnel, LH		Part Number:	D3822-1KIV/KGY
Inspection Dwg: D3822	Rev: C	Page 1 of 1	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

#### THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than "	✓			
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: BB Date: 09/10/28

#### TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.8	Min	1.02	✓			
0.3	Min	.375	✓			
0.55	Min	.79	✓			
0.040	Min	.077	✓			
0.050	Min	.080	✓			

Measured by: BB Date: 09/10/28  
Audited by: WY Date: 09/10/28  
Prototype Appr. val: N/A Date: N/A

Rev	Date	Change	Revised by	Approved
A	09.07.29	New Issue	KJ	

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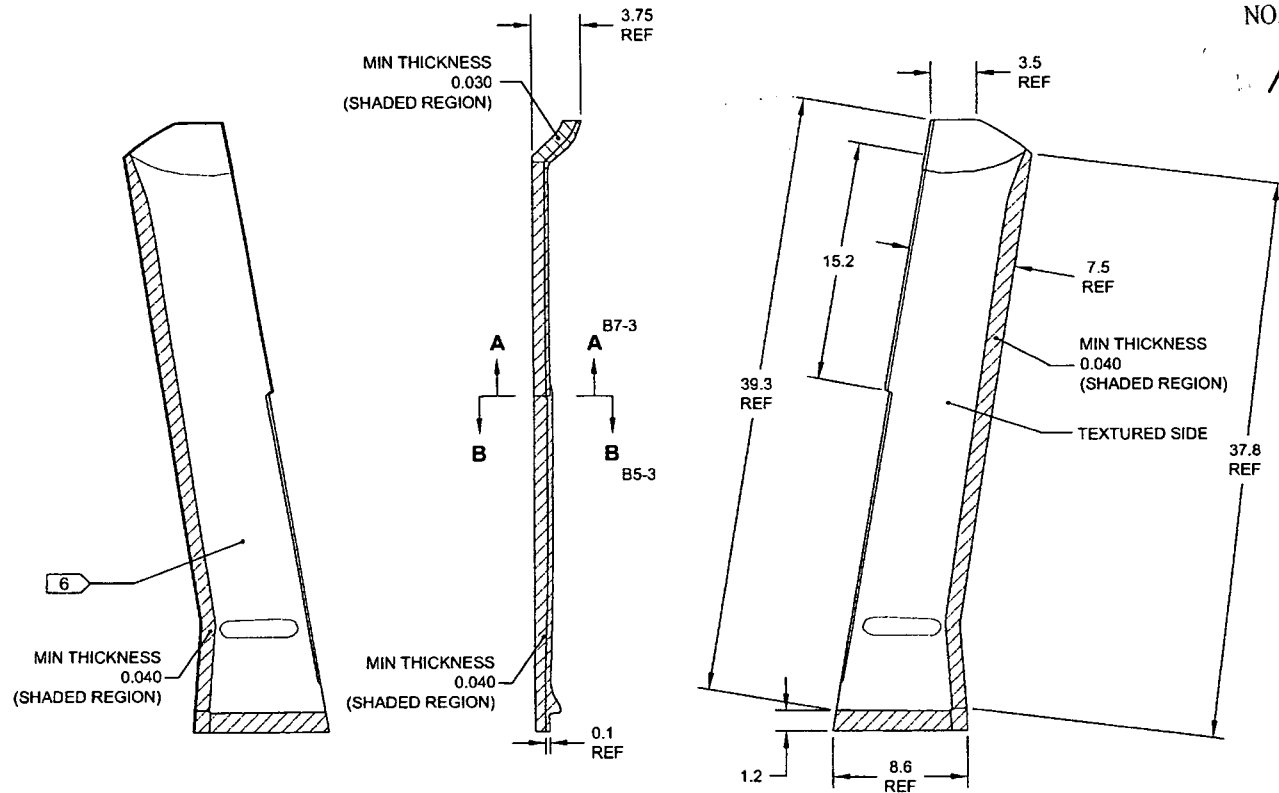
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WITHOUT NOTICE

WORK ORDER

NO. 53009

PR 09-10-21



**D3822-1 VERTICAL TUNNEL, LH**  
(BELL 206 A/B)

## NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) USING VIBRATING STYLUS
- 7) WEIGHT: 1.1 lbs
- 8) TOOLING: THERMOFORM PER MOLD DT9073 PER DART QSI 022. TRIM PER MOLD.
- 9) MINIMUM THICKNESS: 0.050" UNLESS OTHERWISE NOTED

C

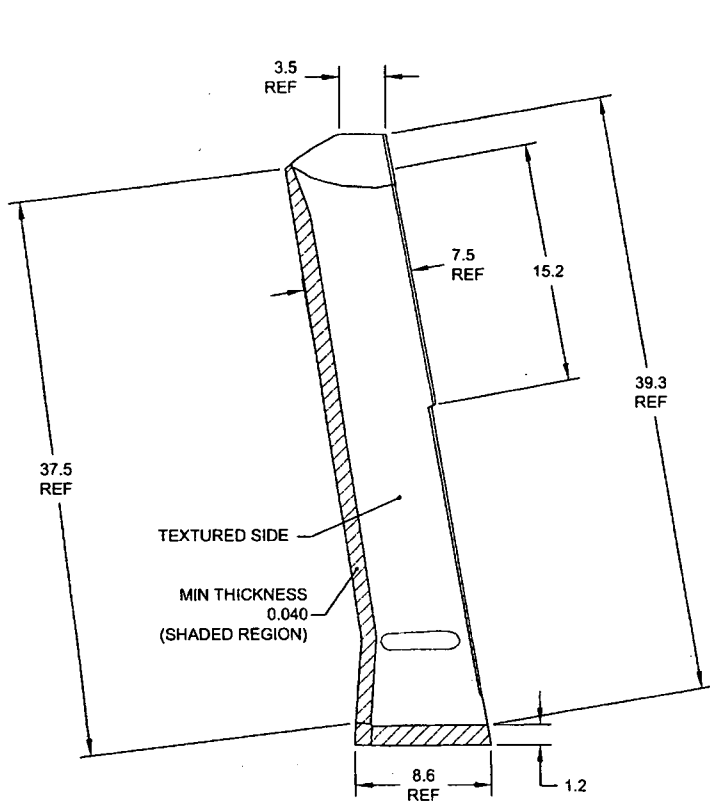
C

PART NUMBER	DESCRIPTION
D3822-1KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3822-1KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

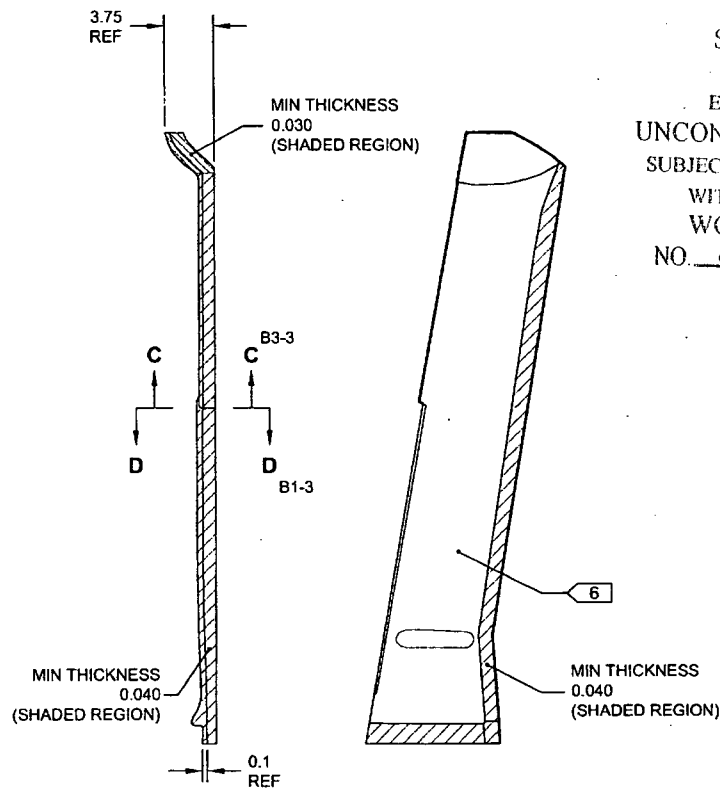
C	ADD STEEL GRAY COLOUR OPTION. ADD IVORY P/N'S D3822-1/2/3/5/7(KIV) AND ADD STEEL GRAY P/N'S D3822-1/2/3/5/7(KGY) (ZN A5-1, A5-2, A5-4, A5-5, A5-6)	PH	09.05.05
B	37.8 WAS 38.8 (ZN C8-4); MODIFY TOP OF -3 AND ADD VIEW J (ZN A3-4); INCREASE JOGGLE ON -3 (ZN C6-4); UPDATE VIEW F (ZN A1-4); REASON: TO IMPROVE FIT OF D206-781-151 KIT	PH	09.02.09
A	NEW ISSUE	PH	08.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN	PH		
DRAWN	PH		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.05.05		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO.	REV. C
D3822	SHEET 1 OF 6
TITLE	SCALE
VERTICAL TUNNEL (BELL 206 A/B)	NTS
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**D3822-2 VERTICAL TUNNEL, RH**  
(BELL 206 A/B)



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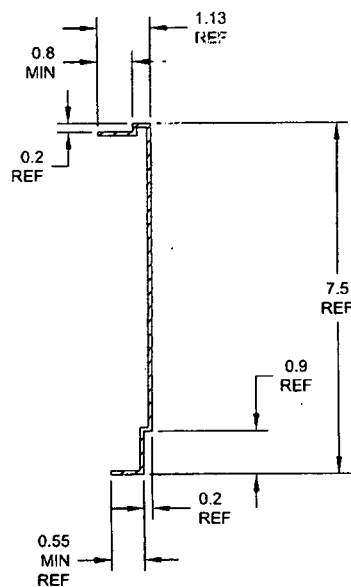
**NOTES:**

- 1) MATERIAL: SEE TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) USING VIBRATING STYLUS
- 7) WEIGHT: 1.1 lbs
- 8) TOOLING: THERMOFORM PER MOLD DT9074 PER DART QSI 022. TRIM PER MOLD
- 9) MINIMUM THICKNESS: 0.050" UNLESS OTHERWISE NOTED



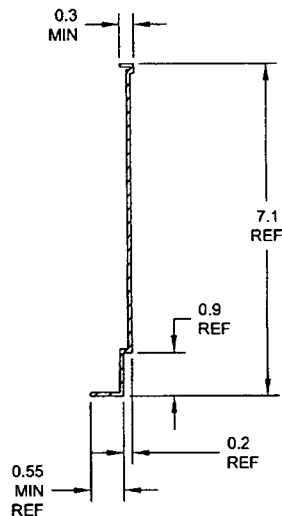
PART NUMBER	DESCRIPTION
D3822-2KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3822-2KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

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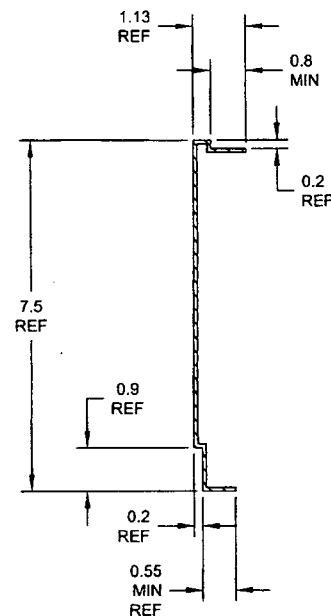
**SECTION A-A**

C6-1



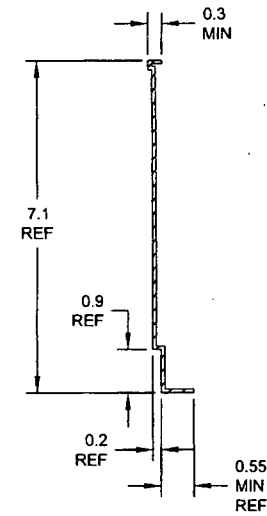
**SECTION B-B**

C6-1



**SECTION C-C**

C4-2



**SECTION D-D**

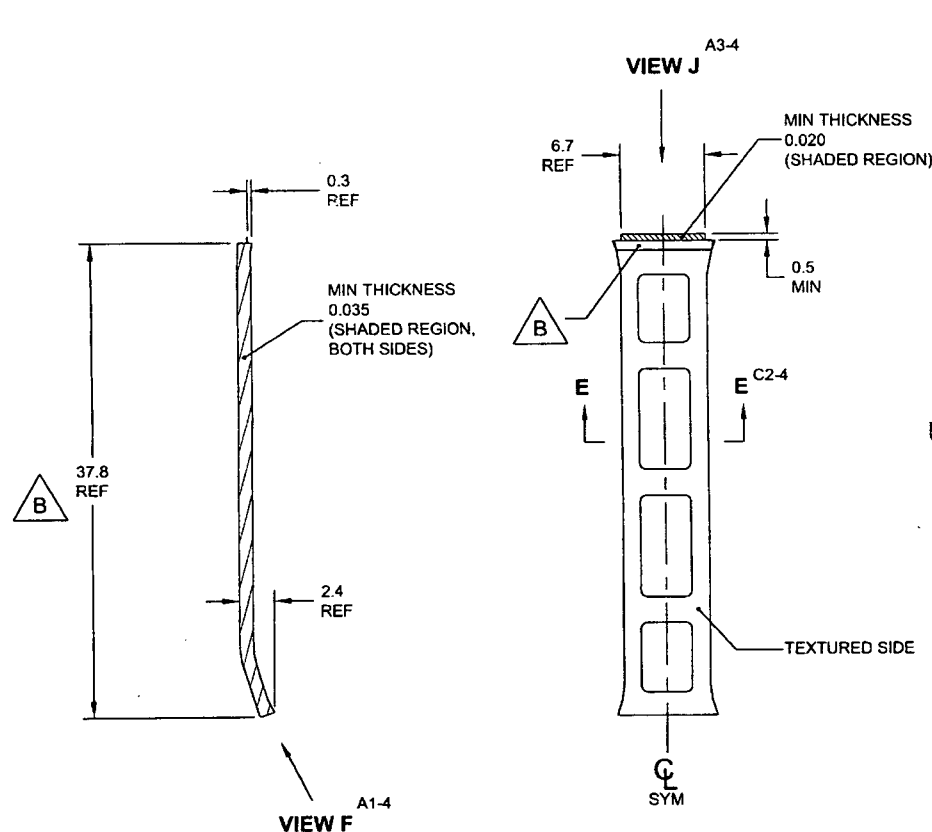
C4-2

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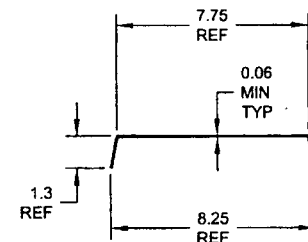
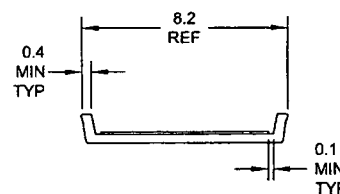
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DE APPR.	RF	VERTICAL TUNNEL (BELL 206 A/B)	
DATE	09.05.05	NTS	
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**D3822-3 VERTICAL TUNNEL, AFT CENTER**  
(BELL 206 A/B)

**VIEW J**  
SCALE 2X

**RELEASED**  
09/05/22

**VIEW F**  
SCALE 2X  
(ROTATED 90° CW)

**NOTES:**

- 1) MATERIAL: SEE TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) USING VIBRATING STYLUS
- 7) WEIGHT: 1.1 lbs
- 8) TOOLING: THERMOFORM PER MOLD DT9072 PER DART QSI 022. TRIM PER MOLD
- 9) MINIMUM THICKNESS: 0.050" UNLESS OTHERWISE NOTED

**C**  
**C**

PART NUMBER	DESCRIPTION
D3822-3KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3822-3KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

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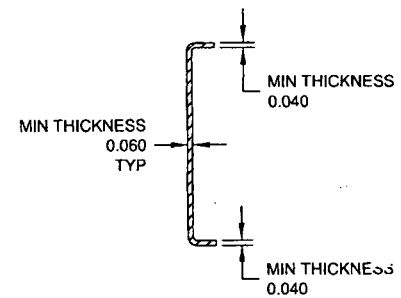
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3

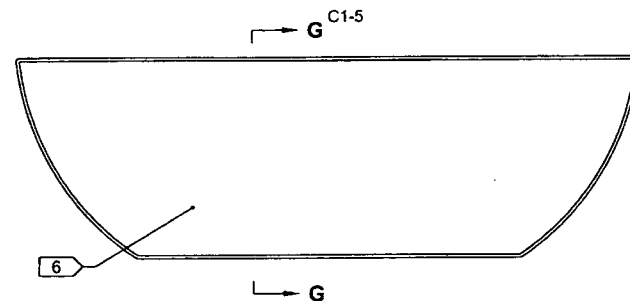
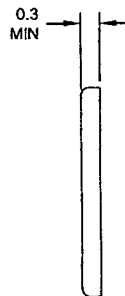
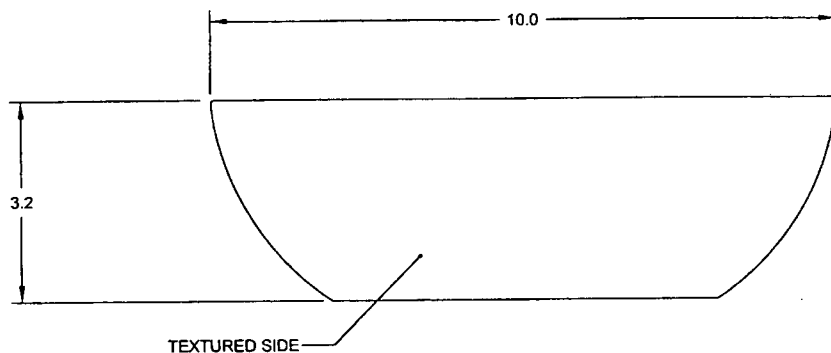
2

1

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C2-5  
**SECTION G-G**



**D3822-5 VERTICAL TUNNEL, TOP**  
(BELL 206 A/B)

**RELEASED**  
9/5/02 M

**NOTES:**

- 1) MATERIAL: SEE TABLE
- 2) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) UNITS: INCHES UNLESS OTHERWISE NOTED
- 4) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 5) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) USING VIBRATING STYLUS
- 6) WEIGHT: 0.12 lbs
- 7) TOOLING: THERMOFORM PER MOLD DT9078 PER DART QSI 022

C

C

PART NUMBER	DESCRIPTION
D3822-5KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3822-5KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

DESIGN	PH	<b>DART AEROSPACE LTD</b>	
DRAWN	PH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. C
MFG. APPR.	PH	D3822	SHEET 5 OF 6
APPROVED	PH	TITLE	SCALE
DE APPR.	PH	VERTICAL TUNNEL (BELL 206 A/B)	NTS
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8

7

6

5

4

3

2

1

MIN THICKNESS  
0.040

MIN THICKNESS  
0.040

0.20  
0.15

2.0

0.4  
REF

0.3  
REF

0.3  
REF

5.9

H

17.00  
MIN

TEXTURED SIDE

H B1-6

SECTION H-H B3-6

**D3822-7 VERTICAL TUNNEL, LOWER**  
(BELL 206 A/B)

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NO. 53006

**RELEASED**  
09/05/22

**NOTES:**

- 1) MATERIAL: SEE TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) WITH VIBRATING STYLUS
- 7) WEIGHT: 0.36 lbs
- 8) TOOLING: THERMOFORM PER MOLD DT9396 PER DART QSI 022
- 9) MINIMUM THICKNESS: 0.060" UNLESS OTHERWISE NOTED

C

C

PART NUMBER	DESCRIPTION
D3822-7KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3822-7KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

DESIGN	PA	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	PA		
CHECKED	PA	DRAWING NO.	REV. C
MFG. APPR.	PA	D3822	SHEET 6 OF 6
APPROVED	PA	TITLE	SCALE
DE APPR.	PA	VERTICAL TUNNEL (BELL 206 A/B)	NTS
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